

Application No.: 10/640,357
Amendment dated: April 11, 2005
Reply to Office Action dated: March 29, 2005

AMENDMENTS TO THE CLAIMS

1. (Original) An actuator, comprising: an actuator element physically supported by and coupled to a suspension element at at least one application site of a bonding agent, the bonding agent covered by a coating application.
2. (Original) The actuator of claim 1, wherein the actuator element is a micro-actuator.
3. (Original) The actuator of claim 2, wherein the micro-actuator is selected from a group consisting of a piezoelectric micro-actuator, an electromagnetic micro-actuator, an electrostatic micro-actuator, a capacitive micro-actuator, a fluidic micro-actuator, or a thermal micro-actuator.
4. (Original) The actuator of claim 1, wherein the bonding agent is a silver paste.
5. (Original) The actuator of claim 1, wherein the coating application has a glass transition temperature greater than 120 degrees Celsius.
6. (Original) The actuator of claim 1, wherein the coating application has a Young's modulus greater than 0.6G Pa.
7. (Original) The actuator of claim 1, wherein the coating application is an epoxy agent.

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8. (Original) The actuator of claim 7, wherein the epoxy agent contains a filler ingredient.

9. (Original) The actuator of claim 8, wherein the filler ingredient is selected from a group consisting of metal, glass, or a fiber material.

10. (Original) The actuator of claim 1, further comprising a step element to maintain a parallel spatial relationship between the actuator element and the suspension element.

11. (Original) The actuator of claim 10, wherein the step element is created by thickening a portion of the actuator element.

12. (Original) The actuator of claim 10, wherein the step element is coupled to a portion of the actuator element.

13. (Original) A system, comprising:

an actuator element;
a suspension element coupled to and supporting the actuator element by at least one application site of a bonding agent, the bonding agent covered by a coating application.

14. (Original) The system of claim 13, further comprising a magnetic head element coupled to the suspension element by at least one application site of a bonding agent, the bonding agent covered by a coating application.

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15. (Original) The system of claim 13, wherein the actuator element is selected from a group consisting of a piezoelectric micro-actuator, an electromagnetic micro-actuator, an electrostatic micro-actuator, a capacitive micro-actuator, a fluidic micro-actuator, or a thermal micro-actuator.

16. (Original) The system of claim 15, wherein the micro-actuator is a piezoelectric micro-actuator.

17. (Original) The system of claim 13, further comprising a slider element coupled to the actuator element.

18. (Original) The system of claim 13, further comprising a hard drive to be read by the slider element.

19. (Original) The system of claim 13, wherein the bonding agent is a silver paste.

20. (Original) The system of claim 13, wherein the coating application has a glass transition temperature greater than 120 degrees Celsius.

21. (Original) The system of claim 13, wherein the coating application has a Young's modulus greater than 0.6G Pa.

22. (Original) The system of claim 13, wherein the coating application is an epoxy agent.

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23. (Original) The system of claim 22, wherein the epoxy agent contains a filler ingredient.

24. (Original) The system of claim 23, wherein the filler ingredient is selected from a group consisting of metal, glass, or a fiber material.

25. (Original) The system of claim 13, further comprising a first step element to maintain a parallel spatial relationship between the actuator element and the suspension element.

26. (Original) The system of claim 25, wherein the first step element is created by thickening a portion of the actuator element.

27. (Original) The system of claim 26, wherein a second step element is molded into the suspension element.

28. (Original) The system of claim 25, wherein the first step element is coupled to a portion of the actuator element.

29. (Original) The system of claim 28, wherein a second step element is coupled to a portion of the suspension element.

30. (Original) The system of claim 25, wherein the first step element is molded into the suspension element.

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31. (Original) The system of claim 25, wherein the first step element is coupled to a portion of the suspension element.

32. (Original) The system of claim 25, wherein the first step element is coupled to a portion of the suspension element using one of a group of materials comprising epoxy, resin, anisotropic conductive film, and anisotropic conductive adhesive.

33. (Original) The system of claim 25, wherein the first step element is coupled to a portion of the micro-actuator element using one of a group of materials comprising epoxy, resin, anisotropic conductive film, and anisotropic conductive adhesive.

34-52 (Cancelled)